

SEQUENCE LISTING

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<120> Methods for the identification of agents for the treatment of seizures, neurological diseases, endocrinopathies and hormonal diseases

<130> 53529-5007-01-US

<150> US 60/430,372
 <151> 2002-12-03

<150> US 60/506,764
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<170> PatentIn version 3.1

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Thr	Ile	Phe	Tyr	Asn	Thr	Asp	Leu	Tyr	Glu	His	Lys	Phe	Ile	Asn	Cys					
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 Lys Met Ala Pro Ser Arg Met Asp Ser Leu Arg Gly Gln Thr Asp Leu
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 Ser Lys Lys Gly Met Leu Gly Met Ile Val Tyr Leu Gly Met Met Ala
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 Gly Ala Phe Ile Leu Gly Gly Leu Ala Asp Lys Leu Gly Arg Lys Arg
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 Val Leu Ser Met Ser Leu Ala Val Asn Ala Ser Phe Ala Ser Leu Ser
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 Ser Phe Val Gln Gly Tyr Gly Ala Phe Leu Phe Cys Arg Leu Ile Ser
 195 200 205
 Gly Ile Gly Ile Gly Gly Ala Leu Pro Ile Val Phe Ala Tyr Phe Ser
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 Glu Phe Leu Ser Arg Glu Lys Arg Gly Glu His Leu Ser Trp Leu Gly
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 Ile Phe Trp Met Thr Gly Gly Leu Tyr Ala Ser Ala Met Ala Trp Ser
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 Ile Ile Pro His Tyr Gly Trp Gly Phe Ser Met Gly Thr Asn Tyr His

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Lys	His	Val	Leu	Phe	Glu	Asp	Thr	Phe	Phe	Asp	Glu	Cys	Tyr	Phe	Glu		
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Thr	Ile	Phe	Tyr	Asn	Thr	Asp	Leu	Tyr	Glu	His	Lys	Phe	Ile	Asn	Cys		
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 Gly Asn Thr Ile Phe Ala Ser Phe Val Gly Ile Thr Lys Val Val Pro
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 Asp Ile Ala Arg Glu Val Lys Lys Gln Thr Val Lys Lys Val Asn Gln
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 gct gtg gac cga gcc cag gat gaa tac acc cag agg tcc tac agt cgg 144
 Ala Val Asp Arg Ala Gln Asp Glu Tyr Thr Gln Arg Ser Tyr Ser Arg
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 ttc caa gat gaa gaa gat gat gat gac tac tac ccg gct gga gaa acc 192
 Phe Gln Asp Glu Glu Asp Asp Asp Asp Tyr Tyr Pro Ala Gly Glu Thr
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 tat aat ggt gag gcc aac gat gac gaa ggc tca agt gaa gcc act gag 240
 Tyr Asn Gly Glu Ala Asn Asp Asp Glu Gly Ser Ser Glu Ala Thr Glu
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 Gly His Asp Glu Asp Asp Glu Ile Tyr Glu Gly Glu Tyr Gln Gly Ile
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 Pro Ser Met Asn Gln Ala Lys Asp Ser Ile Val Ser Val Gly Gln Pro
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 Lys Gly Asp Glu Tyr Lys Asp Arg Arg Glu Leu Glu Ser Glu Arg Arg

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Cys	Gly	His	Gly	Arg	Phe	Gln	Trp	Ala	Leu	Phe	Phe	Val	Leu	Gly	Met		
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Pro	Ser	Ala	Glu	Thr	Asp	Leu	Cys	Ile	Pro	Asn	Ser	Gly	Ser	Gly	Trp		
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Tyr	Gly	Phe	Phe	Leu	Phe	Cys	Arg	Leu	Leu	Ser	Gly	Phe	Gly	Ile	Gly		
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Cys Leu Tyr Asn Gly Leu Thr Ile Ser Ala Trp Asn Ser Leu Asp Val	
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Ser Thr Val Leu Val Cys Gly Gly Leu Val Gly Leu Cys Leu Pro Asp	
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 Gly His Asp Glu Asp Asp Glu Ile Tyr Glu Gly Glu Tyr Gln Gly Ile
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 Pro Ser Met Asn Gln Ala Lys Asp Ser Ile Val Ser Val Gly Gln Pro
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275						280					285						
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 His Gln Glu Asp Glu Leu Ile Glu Ile Gln Ser Asp Thr Gly Thr Trp
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 Tyr Gln Arg Trp Gly Val Arg Ala Leu Ser Leu Gly Gly Gln Val Trp
 420 425 430
 Gly Asn Phe Leu Ser Cys Phe Ser Pro Glu Tyr Arg Arg Ile Thr Leu
 435 440 445
 Met Met Met Gly Val Trp Phe Thr Met Ser Phe Ser Tyr Tyr Gly Leu
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 Thr Val Trp Phe Pro Asp Met Ile Arg His Leu Gln Ala Val Asp Tyr
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Ala	Ala	Arg	Thr	Lys	Val	Phe	Pro	Gly	Glu	Arg	Val	Glu	His	Val	Thr			
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Asn	Asp	Lys	Phe	Ile	Gly	Leu	Arg	Leu	Lys	Ser	Val	Ser	Phe	Glu	Asp			
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Ser	Leu	Phe	Glu	Glu	Cys	Tyr	Phe	Glu	Asp	Val	Thr	Ser	Ser	Asn	Thr			
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Phe	Phe	Arg	Asn	Cys	Thr	Phe	Ile	Asn	Thr	Val	Phe	Tyr	Asn	Thr	Asp			
545					550					555					560			
Leu	Phe	Glu	Tyr	Lys	Phe	Val	Asn	Ser	Arg	Leu	Val	Asn	Ser	Thr	Phe			
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Leu	His	Asn	Lys	Glu	Gly	Cys	Pro	Leu	Asp	Val	Thr	Gly	Thr	Gly	Glu			
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Gly	Ala	Tyr	Met	Val	Tyr	Phe	Val	Ser	Phe	Leu	Gly	Thr	Leu	Ala	Val			
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Thr	Val	Glu	Leu	Tyr	Pro	Ser	Asp	Lys	Arg	Thr	Thr	Ala	Phe	Gly	Phe			
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Leu	Asn	Ala	Leu	Cys	Lys	Leu	Ala	Ala	Val	Leu	Gly	Ile	Ser	Ile	Phe			
	690					695					700							
Thr	Ser	Phe	Val	Gly	Ile	Thr	Lys	Ala	Ala	Pro	Ile	Leu	Phe	Ala	Ser			
705					710					715					720			
Ala	Ala	Leu	Ala	Leu	Gly	Ser	Ser	Leu	Ala	Leu	Lys	Leu	Pro	Glu	Thr			
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gat ggc tac tac cgg ggc aat gag cag aac ccg gaa gaa gat gca cag	96
Asp Gly Tyr Tyr Arg Gly Asn Glu Gln Asn Pro Glu Glu Asp Ala Gln	
20 25 30	
agc gat gtt aca gaa ggc cac gat gaa gag gat gag atc tat gag ggc	144
Ser Asp Val Thr Glu Gly His Asp Glu Glu Asp Glu Ile Tyr Glu Gly	
35 40 45	
gag tac caa ggc atc cct cat cca gat gat gtc aag tct aag cag act	192
Glu Tyr Gln Gly Ile Pro His Pro Asp Asp Val Lys Ser Lys Gln Thr	
50 55 60	
aag atg gca ccg tcc aga gca gat ggc ctt cgg ggc cag gca gac ctg	240
Lys Met Ala Pro Ser Arg Ala Asp Gly Leu Arg Gly Gln Ala Asp Leu	
65 70 75 80	
atg gct gag aga atg gaa gat gag gag cag ctc gct cac cag tac gag	288
Met Ala Glu Arg Met Glu Asp Glu Glu Gln Leu Ala His Gln Tyr Glu	
85 90 95	
acc atc att gat gag tgt ggc cat ggg cgc ttc cag tgg acc ctc ttt	336
Thr Ile Ile Asp Glu Cys Gly His Gly Arg Phe Gln Trp Thr Leu Phe	
100 105 110	
ttc gtc ttg gtc ttg gcc ttg atg gct gac gga gtg gaa gtg ttt gtg	384
Phe Val Leu Val Leu Ala Leu Met Ala Asp Gly Val Glu Val Phe Val	
115 120 125	
gtg agc ttt gct ctg cca agt gca gag aaa gat atg tgt ctg tca agt	432
Val Ser Phe Ala Leu Pro Ser Ala Glu Lys Asp Met Cys Leu Ser Ser	
130 135 140	
tcc aag aaa gga atg ctc ggg ctg att gtc tac cta gga atg atg gca	480
Ser Lys Lys Gly Met Leu Gly Leu Ile Val Tyr Leu Gly Met Met Ala	
145 150 155 160	
gga gcc ttc atc ctg ggg ggc ctg gct gat aaa ctg gga agg aag aag	528
Gly Ala Phe Ile Leu Gly Gly Leu Ala Asp Lys Leu Gly Arg Lys Lys	
165 170 175	
gtc ctc agc atg tcc ttg gct atc aat gct tcc ttt gcc tcc ctc tcc	576
Val Leu Ser Met Ser Leu Ala Ile Asn Ala Ser Phe Ala Ser Leu Ser	
180 185 190	
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Ser Phe Val Gln Gly Tyr Gly Ala Phe Leu Phe Cys Arg Leu Ile Ser	
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ggc ata ggt att ggg ggc tcc ctg cca att gtt ttt gcc tac ttt tct	672
Gly Ile Gly Ile Gly Gly Ser Leu Pro Ile Val Phe Ala Tyr Phe Ser	
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gag ttc tta tca cgg gag aaa cgc ggt gag cat ctc agc tgg ctg ggt	720
Glu Phe Leu Ser Arg Glu Lys Arg Gly Glu His Leu Ser Trp Leu Gly	
225 230 235 240	

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atc att cca cac tat ggc tgg ggc ttc agc atg gga acc aat tat cac Ile Ile Pro His Tyr Gly Trp Gly Phe Ser Met Gly Thr Asn Tyr His 260 265 270	816
ttc cac agc tgg aga gtg ttt gtc atc gtc tgt gct ctg cct gcc act Phe His Ser Trp Arg Val Phe Val Ile Val Cys Ala Leu Pro Ala Thr 275 280 285	864
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ctg gag atg ggc aag cat gat gaa gcc tgg atg att ctc aag caa gtc Leu Glu Met Gly Lys His Asp Glu Ala Trp Met Ile Leu Lys Gln Val 305 310 315 320	960
cat gac acc aac atg aga gct aag ggg acc cct gag aag gtg ttc acg His Asp Thr Asn Met Arg Ala Lys Gly Thr Pro Glu Lys Val Phe Thr 325 330 335	1008
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cag agt tca aca ggg act tgg tac cag cgc tgg ttg gtc agg ttc atg Gln Ser Thr Gly Thr Trp Tyr Gln Arg Trp Leu Val Arg Phe Met 355 360 365	1104
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ccc tac aga atg aac acc ctg att ctg gct gtg gtc tgg ttc acc atg Pro Tyr Arg Met Asn Thr Leu Ile Leu Ala Val Val Trp Phe Thr Met 385 390 395 400	1200
gcc tta agt tac tat ggc ctg aca gtg tgg ttc ccc gac atg atc cgg Ala Leu Ser Tyr Tyr Gly Leu Thr Val Trp Phe Pro Asp Met Ile Arg 405 410 415	1248
tat ttc cag gat gaa gaa tat aag tct aaa atg aag gtg ttt ttt ggt Tyr Phe Gln Asp Glu Glu Tyr Lys Ser Lys Met Lys Val Phe Phe Gly 420 425 430	1296
gag cac gtg cat ggc gcc aca atc aac ttc acc atg gaa aac cag atc Glu His Val His Gly Ala Thr Ile Asn Phe Thr Met Glu Asn Gln Ile 435 440 445	1344
cac caa cat ggg aag ctt gtg aac gat aag ttc ata aag atg tac ttt His Gln His Gly Lys Leu Val Asn Asp Lys Phe Ile Lys Met Tyr Phe 450 455 460	1392
aag cat gtc ctc ttt gag gac aca ttc ttt gac aaa tgc tat ttt gaa Lys His Val Leu Phe Glu Asp Thr Phe Phe Asp Lys Cys Tyr Phe Glu 465 470 475 480	1440

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Asp	Val	Thr	Ser	Thr	Asp	Thr	Tyr	Phe	Lys	Asn	Cys	Thr	Ile	Glu	Ser	
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Thr	Thr	Phe	Tyr	Asn	Thr	Asp	Leu	Tyr	Lys	His	Lys	Phe	Ile	Asp	Cys	
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cgg	ttt	atc	aat	tcc	acc	ttt	ctg	gag	cag	aag	gag	ggc	tgc	cac	atg	1584
Arg	Phe	Ile	Asn	Ser	Thr	Phe	Leu	Glu	Gln	Lys	Glu	Gly	Cys	His	Met	
		515					520					525				
gac	ttt	gaa	gag	gac	aat	gat	ttt	ctg	att	tac	ctc	gtc	agc	ttc	ctc	1632
Asp	Phe	Glu	Glu	Asp	Asn	Asp	Phe	Leu	Ile	Tyr	Leu	Val	Ser	Phe	Leu	
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Gly	Ser	Leu	Ser	Val	Leu	Pro	Gly	Asn	Ile	Ile	Ser	Ala	Leu	Leu	Met	
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Asp	Arg	Ile	Gly	Arg	Leu	Lys	Met	Ile	Gly	Gly	Ser	Met	Leu	Ile	Ser	
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Ile	Gly	Trp	Gln	Cys	Leu	Phe	Cys	Gly	Thr	Ser	Ile	Ala	Ala	Trp	Asn	
		595					600					605				
gct	ctg	gat	gtg	atc	aca	gta	gag	ctg	tat	ccc	acc	aac	cag	agg	gcc	1872
Ala	Leu	Asp	Val	Ile	Thr	Val	Glu	Leu	Tyr	Pro	Thr	Asn	Gln	Arg	Ala	
	610					615					620					
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Thr	Ala	Phe	Gly	Ile	Leu	Asn	Gly	Leu	Cys	Lys	Leu	Gly	Ala	Ile	Leu	
	625				630					635				640		
gga	aac	act	atc	ttt	gct	tct	ttt	gtt	ggg	atc	acc	aaa	gtg	gtc	ccc	1968
Gly	Asn	Thr	Ile	Phe	Ala	Ser	Phe	Val	Gly	Ile	Thr	Lys	Val	Val	Pro	
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cga	ctg	cca	gag	act	cga	gag	cag	gtc	ctg	atg	tga					2052
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 35 40 45
 Glu Tyr Gln Gly Ile Pro His Pro Asp Asp Val Lys Ser Lys Gln Thr
 50 55 60
 Lys Met Ala Pro Ser Arg Ala Asp Gly Leu Arg Gly Gln Ala Asp Leu
 65 70 75 80
 Met Ala Glu Arg Met Glu Asp Glu Glu Gln Leu Ala His Gln Tyr Glu
 85 90 95
 Thr Ile Ile Asp Glu Cys Gly His Gly Arg Phe Gln Trp Thr Leu Phe
 100 105 110
 Phe Val Leu Val Leu Ala Leu Met Ala Asp Gly Val Glu Val Phe Val
 115 120 125
 Val Ser Phe Ala Leu Pro Ser Ala Glu Lys Asp Met Cys Leu Ser Ser
 130 135 140
 Ser Lys Lys Gly Met Leu Gly Leu Ile Val Tyr Leu Gly Met Met Ala
 145 150 155 160
 Gly Ala Phe Ile Leu Gly Gly Leu Ala Asp Lys Leu Gly Arg Lys Lys
 165 170 175
 Val Leu Ser Met Ser Leu Ala Ile Asn Ala Ser Phe Ala Ser Leu Ser
 180 185 190
 Ser Phe Val Gln Gly Tyr Gly Ala Phe Leu Phe Cys Arg Leu Ile Ser
 195 200 205
 Gly Ile Gly Ile Gly Gly Ser Leu Pro Ile Val Phe Ala Tyr Phe Ser
 210 215 220
 Glu Phe Leu Ser Arg Glu Lys Arg Gly Glu His Leu Ser Trp Leu Gly
 225 230 235 240
 Ile Phe Trp Met Thr Gly Gly Ile Tyr Ala Ser Ala Met Ala Trp Ser
 245 250 255
 Ile Ile Pro His Tyr Gly Trp Gly Phe Ser Met Gly Thr Asn Tyr His
 260 265 270
 Phe His Ser Trp Arg Val Phe Val Ile Val Cys Ala Leu Pro Ala Thr
 275 280 285
 Val Ser Met Val Ala Leu Lys Phe Met Pro Glu Ser Pro Arg Phe Leu
 290 295 300
 Leu Glu Met Gly Lys His Asp Glu Ala Trp Met Ile Leu Lys Gln Val
 305 310 315 320
 His Asp Thr Asn Met Arg Ala Lys Gly Thr Pro Glu Lys Val Phe Thr
 325 330 335

Val	Ser	His	Ile	Lys	Thr	Pro	Lys	Gln	Met	Asp	Glu	Phe	Ile	Glu	Ile	340	345	350	
Gln	Ser	Ser	Thr	Gly	Thr	Trp	Tyr	Gln	Arg	Trp	Leu	Val	Arg	Phe	Met	355	360	365	
Thr	Ile	Phe	Lys	Gln	Val	Trp	Asp	Asn	Ala	Leu	Tyr	Cys	Val	Met	Gly	370	375	380	
Pro	Tyr	Arg	Met	Asn	Thr	Leu	Ile	Leu	Ala	Val	Val	Trp	Phe	Thr	Met	385	390	395	400
Ala	Leu	Ser	Tyr	Tyr	Gly	Leu	Thr	Val	Trp	Phe	Pro	Asp	Met	Ile	Arg	405	410	415	
Tyr	Phe	Gln	Asp	Glu	Glu	Tyr	Lys	Ser	Lys	Met	Lys	Val	Phe	Phe	Gly	420	425	430	
Glu	His	Val	His	Gly	Ala	Thr	Ile	Asn	Phe	Thr	Met	Glu	Asn	Gln	Ile	435	440	445	
His	Gln	His	Gly	Lys	Leu	Val	Asn	Asp	Lys	Phe	Ile	Lys	Met	Tyr	Phe	450	455	460	
Lys	His	Val	Leu	Phe	Glu	Asp	Thr	Phe	Phe	Asp	Lys	Cys	Tyr	Phe	Glu	465	470	475	480
Asp	Val	Thr	Ser	Thr	Asp	Thr	Tyr	Phe	Lys	Asn	Cys	Thr	Ile	Glu	Ser	485	490	495	
Thr	Thr	Phe	Tyr	Asn	Thr	Asp	Leu	Tyr	Lys	His	Lys	Phe	Ile	Asp	Cys	500	505	510	
Arg	Phe	Ile	Asn	Ser	Thr	Phe	Leu	Glu	Gln	Lys	Glu	Gly	Cys	His	Met	515	520	525	
Asp	Phe	Glu	Glu	Asp	Asn	Asp	Phe	Leu	Ile	Tyr	Leu	Val	Ser	Phe	Leu	530	535	540	
Gly	Ser	Leu	Ser	Val	Leu	Pro	Gly	Asn	Ile	Ile	Ser	Ala	Leu	Leu	Met	545	550	555	560
Asp	Arg	Ile	Gly	Arg	Leu	Lys	Met	Ile	Gly	Gly	Ser	Met	Leu	Ile	Ser	565	570	575	
Ala	Val	Cys	Cys	Phe	Phe	Leu	Phe	Phe	Gly	Asn	Ser	Glu	Ser	Ala	Met	580	585	590	
Ile	Gly	Trp	Gln	Cys	Leu	Phe	Cys	Gly	Thr	Ser	Ile	Ala	Ala	Trp	Asn	595	600	605	
Ala	Leu	Asp	Val	Ile	Thr	Val	Glu	Leu	Tyr	Pro	Thr	Asn	Gln	Arg	Ala	610	615	620	
Thr	Ala	Phe	Gly	Ile	Leu	Asn	Gly	Leu	Cys	Lys	Leu	Gly	Ala	Ile	Leu	625	630	635	640
Gly	Asn	Thr	Ile	Phe	Ala	Ser	Phe	Val	Gly	Ile	Thr	Lys	Val	Val	Pro	645	650	655	
Ile	Leu	Leu	Ala	Ala	Ala	Ser	Leu	Val	Gly	Gly	Gly	Leu	Val	Ala	Leu				

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675	680	
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cgctctattc tgaactgtga gtggatgatg ctgttgacgc caagctgctg aacacactcc		180
gtggactctt ccctgctgtg ccttgcccat cggccgagat aaa atg gaa gac tcc		235
	Met Glu Asp Ser	
	1	
tac aag gat agg act tca ctg atg aag ggc gcc aag gac att gcc aaa		283
Tyr Lys Asp Arg Thr Ser Leu Met Lys Gly Ala Lys Asp Ile Ala Lys		
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gag gtg aag aag caa aca gtg aag aag gtg aac cag gca gtg gac cgg		331
Glu Val Lys Lys Gln Thr Val Lys Lys Val Asn Gln Ala Val Asp Arg		
	25 30 35	
gcc cag gat gaa tac acc cag cgg tcc tac agt cga ttc cag gat gaa		379
Ala Gln Asp Glu Tyr Thr Gln Arg Ser Tyr Ser Arg Phe Gln Asp Glu		
	40 45 50	
gat gat gat gat gac tac tac cca cct gga gaa acc tac agt ggg gag		427
Asp Asp Asp Asp Asp Tyr Tyr Pro Pro Gly Glu Thr Tyr Ser Gly Glu		
	55 60 65	
gcc aat gat gat gaa ggc tca agt gaa gcc act gag ggt cac gat gaa		475
Ala Asn Asp Asp Glu Gly Ser Ser Glu Ala Thr Glu Gly His Asp Glu		
	70 75 80	
gaa gac gag atc tat gaa ggg gaa tac cag ggc atc ccc agc acg aac		523
Glu Asp Glu Ile Tyr Glu Gly Glu Tyr Gln Gly Ile Pro Ser Thr Asn		
	85 90 95 100	
caa ggg aag gac agc ata gtg tct gta gga caa ccc aaa gga gat gag		571
Gln Gly Lys Asp Ser Ile Val Ser Val Gly Gln Pro Lys Gly Asp Glu		
	105 110 115	
tac aag gac cgc aga gag ctg gag tca gag agg agg gct gat gag gag		619
Tyr Lys Asp Arg Arg Glu Leu Glu Ser Glu Arg Arg Ala Asp Glu Glu		
	120 125 130	
gag ctc gcc cag cag tat gag ctg ata atc caa gag tgt ggc cat ggc		667
Glu Leu Ala Gln Gln Tyr Glu Leu Ile Ile Gln Glu Cys Gly His Gly		

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cgt	ttc	cag	tgg	gcc	ctt	ttc	ttc	gtc	ctg	ggc	atg	gct	ctc	atg	gca	715
Arg	Phe	Gln	Trp	Ala	Leu	Phe	Phe	Val	Leu	Gly	Met	Ala	Leu	Met	Ala	
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gac	ggc	gtg	gag	gtg	ttt	gtg	gtg	ggc	ttt	gtg	tta	ccc	agt	gca	gag	763
Asp	Gly	Val	Glu	Val	Phe	Val	Val	Gly	Phe	Val	Leu	Pro	Ser	Ala	Glu	
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aca	gac	cta	tgc	ata	ccg	aat	tca	gga	tct	gga	tgg	cta	ggc	agc	ata	811
Thr	Asp	Leu	Cys	Ile	Pro	Asn	Ser	Gly	Ser	Gly	Trp	Leu	Gly	Ser	Ile	
				185					190					195		
gtg	tac	ctc	ggg	atg	atg	gtg	ggg	gcg	ttc	ttc	tgg	gga	gga	ctg	gca	859
Val	Tyr	Leu	Gly	Met	Met	Val	Gly	Ala	Phe	Phe	Trp	Gly	Gly	Leu	Ala	
			200					205					210			
gac	aaa	gtg	gga	agg	aag	cag	tct	ctt	ctg	att	tgc	atg	tcc	gtc	aac	907
Asp	Lys	Val	Gly	Arg	Lys	Gln	Ser	Leu	Leu	Ile	Cys	Met	Ser	Val	Asn	
	215						220					225				
gga	ttc	ttt	gcc	ttc	ctt	tct	tca	ttt	gtc	caa	ggt	tac	ggc	ttc	ttt	955
Gly	Phe	Phe	Ala	Phe	Leu	Ser	Ser	Phe	Val	Gln	Gly	Tyr	Gly	Phe	Phe	
	230					235					240					
ctc	ctc	tgt	cgt	ttg	ctt	tca	gga	ttc	ggg	att	gga	ggc	gcc	att	ccc	1003
Leu	Leu	Cys	Arg	Leu	Leu	Ser	Gly	Phe	Gly	Ile	Gly	Gly	Ala	Ile	Pro	
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Thr	Val	Phe	Ser	Tyr	Phe	Ala	Glu	Val	Leu	Ala	Arg	Glu	Lys	Arg	Gly	
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gag	cac	ctc	agt	tgg	ctc	tgc	atg	ttc	tgg	atg	att	ggc	ggt	atc	tat	1099
Glu	His	Leu	Ser	Trp	Leu	Cys	Met	Phe	Trp	Met	Ile	Gly	Gly	Ile	Tyr	
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gct	tca	gcc	atg	gcc	tgg	gcc	atc	atc	ccc	cac	tat	ggg	tgg	agc	ttc	1147
Ala	Ser	Ala	Met	Ala	Trp	Ala	Ile	Ile	Pro	His	Tyr	Gly	Trp	Ser	Phe	
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Ser	Met	Gly	Ser	Ala	Tyr	Gln	Phe	His	Ser	Trp	Arg	Val	Phe	Val	Ile	
	310					315					320					
gtc	tgt	gcc	ctc	ccg	tgc	gtc	tcc	tcg	gtg	gtg	gcc	ctc	acc	ttc	atg	1243
Val	Cys	Ala	Leu	Pro	Cys	Val	Ser	Ser	Val	Val	Ala	Leu	Thr	Phe	Met	
325					330					335					340	
ccc	gaa	agc	cct	cgg	ttc	ttg	ctg	gag	gta	gga	aaa	cat	gat	gaa	gcc	1291
Pro	Glu	Ser	Pro	Arg	Phe	Leu	Leu	Glu	Val	Gly	Lys	His	Asp	Glu	Ala	
				345					350					355		
tgg	atg	att	ctg	aag	cta	att	cat	gat	acc	aac	atg	aga	gcc	cgg	ggc	1339
Trp	Met	Ile	Leu	Lys	Leu	Ile	His	Asp	Thr	Asn	Met	Arg	Ala	Arg	Gly	
			360					365					370			
cag	cca	gag	aag	gtc	ttc	acg	gta	aat	aaa	atc	aag	act	ccc	aag	caa	1387
Gln	Pro	Glu	Lys	Val	Phe	Thr	Val	Asn	Lys	Ile	Lys	Thr	Pro	Lys	Gln	
		375					380					385				

ata gat gag ctg att gag att gag agc gac aca gga acc tgg tac cgg Ile Asp Glu Leu Ile Glu Ile Glu Ser Asp Thr Gly Thr Trp Tyr Arg 390 395 400	1435
agg tgt ttt gtt cgg atc cgc aca gaa ctg tac gga att tgg ttg act Arg Cys Phe Val Arg Ile Arg Thr Glu Leu Tyr Gly Ile Trp Leu Thr 405 410 415 420	1483
ttt atg aga tgc ttc aac tac ccg gtc agg gaa aac acc ata aag ctt Phe Met Arg Cys Phe Asn Tyr Pro Val Arg Glu Asn Thr Ile Lys Leu 425 430 435	1531
acg att gtt tgg ttc acc ctg tcc ttt ggg tac tat gga ctg tcc gtt Thr Ile Val Trp Phe Thr Leu Ser Phe Gly Tyr Tyr Gly Leu Ser Val 440 445 450	1579
tgg ttc cca gat gtc att aaa cac ctc cag tct gac gag tac gcc ctg Trp Phe Pro Asp Val Ile Lys His Leu Gln Ser Asp Glu Tyr Ala Leu 455 460 465	1627
ctg act cgg aat gtg cag aag gat aaa tat gca aac ttt agc att aac Leu Thr Arg Asn Val Gln Lys Asp Lys Tyr Ala Asn Phe Ser Ile Asn 470 475 480	1675
ttc acc atg gaa aac cag gtc cac acc gga atg gaa tat gac aat ggc Phe Thr Met Glu Asn Gln Val His Thr Gly Met Glu Tyr Asp Asn Gly 485 490 495 500	1723
agg ttc ctc gga gtc aaa ttc aaa tcg gta acc ttc aag gat tca gtg Arg Phe Leu Gly Val Lys Phe Lys Ser Val Thr Phe Lys Asp Ser Val 505 510 515	1771
ttt aag tcc tgc acc ttt gac gat gtg acc tca gtc aac acc tac ttc Phe Lys Ser Cys Thr Phe Asp Asp Val Thr Ser Val Asn Thr Tyr Phe 520 525 530	1819
aag aac tgc acg ttt att gat acc ctt ttt gag aac aca gat ttt gag Lys Asn Cys Thr Phe Ile Asp Thr Leu Phe Glu Asn Thr Asp Phe Glu 535 540 545	1867
ccc tat aaa ttc ata gac agc gag ttt caa aac tgc tcg ttt ctt cac Pro Tyr Lys Phe Ile Asp Ser Glu Phe Gln Asn Cys Ser Phe Leu His 550 555 560	1915
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tgg att tac ttt gtc aac ttt ctc ggg aca ttg gca gtg tta cca gga Trp Ile Tyr Phe Val Asn Phe Leu Gly Thr Leu Ala Val Leu Pro Gly 585 590 595	2011
aat atc gtg tct gct ctc ctg atg gac agg atc ggg cgc tta acg atg Asn Ile Val Ser Ala Leu Leu Met Asp Arg Ile Gly Arg Leu Thr Met 600 605 610	2059
cta ggt ggc tcc atg gtg ctc tcg ggg atc agc tgc ttc ttc ctg tgg Leu Gly Gly Ser Met Val Leu Ser Gly Ile Ser Cys Phe Phe Leu Trp 615 620 625	2107

ttt ggc acc agc gaa tcc atg atg ata ggc atg ctg tgc ttg tac aac 2155
 Phe Gly Thr Ser Glu Ser Met Met Ile Gly Met Leu Cys Leu Tyr Asn
 630 635 640

gga ctg acc atc tca gcg tgg aac tct ctt gat gta gtc acg gtg gaa 2203
 Gly Leu Thr Ile Ser Ala Trp Asn Ser Leu Asp Val Val Thr Val Glu
 645 650 655 660

cta tac ccc aca gac cgg aga gca acg ggc ttt ggc ttc ttg aac gca 2251
 Leu Tyr Pro Thr Asp Arg Arg Ala Thr Gly Phe Gly Phe Leu Asn Ala
 665 670 675

ctc tgt aaa gca gcg gcc gtc ctg gga aac tta ata ttc ggc tcc ttg 2299
 Leu Cys Lys Ala Ala Ala Val Leu Gly Asn Leu Ile Phe Gly Ser Leu
 680 685 690

gtc agc atc acc aaa gca atc cct atc ctg ctg gct tcc acc gtg ctc 2347
 Val Ser Ile Thr Lys Ala Ile Pro Ile Leu Leu Ala Ser Thr Val Leu
 695 700 705

gtg tgt gga gga ctc gtg ggg ctg cgc ctg ccc gac aca aga acc cag 2395
 Val Cys Gly Gly Leu Val Gly Leu Arg Leu Pro Asp Thr Arg Thr Gln
 710 715 720

gtt ctg atg tga caaaagccat tctcttctct caccatgggt cagccctatt 2447
 Val Leu Met
 725

gcctgactca aggcttcaga gtttttatgt atagaaaggt ggccaagtat cagaactcaa 2507
 acttttgctg tgacgtaaat gtagctgtgt attgtccccg ccagtgtgat ttgcagggtc 2567
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 35 40 45
 Phe Gln Asp Glu Asp Asp Asp Asp Tyr Tyr Pro Pro Gly Glu Thr
 50 55 60
 Tyr Ser Gly Glu Ala Asn Asp Asp Glu Gly Ser Ser Glu Ala Thr Glu
 65 70 75 80
 Gly His Asp Glu Glu Asp Glu Ile Tyr Glu Gly Glu Tyr Gln Gly Ile
 85 90 95
 Pro Ser Thr Asn Gln Gly Lys Asp Ser Ile Val Ser Val Gly Gln Pro
 100 105 110

Lys Gly Asp Glu Tyr Lys Asp Arg Arg Glu Leu Glu Ser Glu Arg Arg
 115 120 125
 Ala Asp Glu Glu Glu Leu Ala Gln Gln Tyr Glu Leu Ile Ile Gln Glu
 130 135 140
 Cys Gly His Gly Arg Phe Gln Trp Ala Leu Phe Phe Val Leu Gly Met
 145 150 155 160
 Ala Leu Met Ala Asp Gly Val Glu Val Phe Val Val Gly Phe Val Leu
 165 170 175
 Pro Ser Ala Glu Thr Asp Leu Cys Ile Pro Asn Ser Gly Ser Gly Trp
 180 185 190
 Leu Gly Ser Ile Val Tyr Leu Gly Met Met Val Gly Ala Phe Phe Trp
 195 200 205
 Gly Gly Leu Ala Asp Lys Val Gly Arg Lys Gln Ser Leu Leu Ile Cys
 210 215 220
 Met Ser Val Asn Gly Phe Phe Ala Phe Leu Ser Ser Phe Val Gln Gly
 225 230 235 240
 Tyr Gly Phe Phe Leu Leu Cys Arg Leu Leu Ser Gly Phe Gly Ile Gly
 245 250 255
 Gly Ala Ile Pro Thr Val Phe Ser Tyr Phe Ala Glu Val Leu Ala Arg
 260 265 270
 Glu Lys Arg Gly Glu His Leu Ser Trp Leu Cys Met Phe Trp Met Ile
 275 280 285
 Gly Gly Ile Tyr Ala Ser Ala Met Ala Trp Ala Ile Ile Pro His Tyr
 290 295 300
 Gly Trp Ser Phe Ser Met Gly Ser Ala Tyr Gln Phe His Ser Trp Arg
 305 310 315 320
 Val Phe Val Ile Val Cys Ala Leu Pro Cys Val Ser Ser Val Val Ala
 325 330 335
 Leu Thr Phe Met Pro Glu Ser Pro Arg Phe Leu Leu Glu Val Gly Lys
 340 345 350
 His Asp Glu Ala Trp Met Ile Leu Lys Leu Ile His Asp Thr Asn Met
 355 360 365
 Arg Ala Arg Gly Gln Pro Glu Lys Val Phe Thr Val Asn Lys Ile Lys
 370 375 380
 Thr Pro Lys Gln Ile Asp Glu Leu Ile Glu Ile Glu Ser Asp Thr Gly
 385 390 395 400
 Thr Trp Tyr Arg Arg Cys Phe Val Arg Ile Arg Thr Glu Leu Tyr Gly
 405 410 415
 Ile Trp Leu Thr Phe Met Arg Cys Phe Asn Tyr Pro Val Arg Glu Asn
 420 425 430

Thr Ile Lys Leu Thr Ile Val Trp Phe Thr Leu Ser Phe Gly Tyr Tyr
 435 440 445
 Gly Leu Ser Val Trp Phe Pro Asp Val Ile Lys His Leu Gln Ser Asp
 450 455 460
 Glu Tyr Ala Leu Leu Thr Arg Asn Val Gln Lys Asp Lys Tyr Ala Asn
 465 470 475 480
 Phe Ser Ile Asn Phe Thr Met Glu Asn Gln Val His Thr Gly Met Glu
 485 490 495
 Tyr Asp Asn Gly Arg Phe Leu Gly Val Lys Phe Lys Ser Val Thr Phe
 500 505 510
 Lys Asp Ser Val Phe Lys Ser Cys Thr Phe Asp Asp Val Thr Ser Val
 515 520 525
 Asn Thr Tyr Phe Lys Asn Cys Thr Phe Ile Asp Thr Leu Phe Glu Asn
 530 535 540
 Thr Asp Phe Glu Pro Tyr Lys Phe Ile Asp Ser Glu Phe Gln Asn Cys
 545 550 555 560
 Ser Phe Leu His Asn Lys Thr Gly Cys Gln Ile Thr Phe Asp Asp Asp
 565 570 575
 Tyr Ser Ala Tyr Trp Ile Tyr Phe Val Asn Phe Leu Gly Thr Leu Ala
 580 585 590
 Val Leu Pro Gly Asn Ile Val Ser Ala Leu Leu Met Asp Arg Ile Gly
 595 600 605
 Arg Leu Thr Met Leu Gly Gly Ser Met Val Leu Ser Gly Ile Ser Cys
 610 615 620
 Phe Phe Leu Trp Phe Gly Thr Ser Glu Ser Met Met Ile Gly Met Leu
 625 630 635 640
 Cys Leu Tyr Asn Gly Leu Thr Ile Ser Ala Trp Asn Ser Leu Asp Val
 645 650 655
 Val Thr Val Glu Leu Tyr Pro Thr Asp Arg Arg Ala Thr Gly Phe Gly
 660 665 670
 Phe Leu Asn Ala Leu Cys Lys Ala Ala Ala Val Leu Gly Asn Leu Ile
 675 680 685
 Phe Gly Ser Leu Val Ser Ile Thr Lys Ala Ile Pro Ile Leu Leu Ala
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 Ser Thr Val Leu Val Cys Gly Gly Leu Val Gly Leu Arg Leu Pro Asp
 705 710 715 720
 Thr Arg Thr Gln Val Leu Met
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<213> Rattus norvegicus

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<221> CDS

<222> (1)..(1647)

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Met	Glu	Glu	Asp	Leu	Phe	Gln	Leu	Arg	Gln	Leu	Pro	Val	Val	Lys	Phe	
1				5					10					15		

cgc	cgc	aca	gga	gag	agc	gca	cgg	tca	gag	gac	gac	gcg	gct	tcc	ggg	96
Arg	Arg	Thr	Gly	Glu	Ser	Ala	Arg	Ser	Glu	Asp	Asp	Ala	Ala	Ser	Gly	
			20					25					30			

gaa	cat	gat	gtt	cag	att	gag	ggg	gtc	cga	gtg	ggc	cta	gaa	gct	gtc	144
Glu	His	Asp	Val	Gln	Ile	Glu	Gly	Val	Arg	Val	Gly	Leu	Glu	Ala	Val	
		35				40					45					

gag	ctg	gat	gat	gga	gca	gct	gtc	ccc	aag	gag	ttt	gcc	aat	ccc	act	192
Glu	Leu	Asp	Asp	Gly	Ala	Ala	Val	Pro	Lys	Glu	Phe	Ala	Asn	Pro	Thr	
	50					55					60					

gat	gac	act	ttc	atg	gtc	gaa	gat	gcg	gtg	gaa	gcc	att	ggg	ttc	gga	240
Asp	Asp	Thr	Phe	Met	Val	Glu	Asp	Ala	Val	Glu	Ala	Ile	Gly	Phe	Gly	
65					70					75				80		

aga	ttc	cag	tgg	aag	ctc	tct	gtt	ctc	acc	ggc	ttg	gct	tgg	atg	gcg	288
Arg	Phe	Gln	Trp	Lys	Leu	Ser	Val	Leu	Thr	Gly	Leu	Ala	Trp	Met	Ala	
				85					90					95		

gac	gcc	atg	gag	atg	atg	att	ctg	agc	atc	ctg	gcg	cct	cag	ctg	cac	336
Asp	Ala	Met	Glu	Met	Met	Ile	Leu	Ser	Ile	Leu	Ala	Pro	Gln	Leu	His	
			100					105						110		

tgc	gag	tgg	cga	ctc	ccc	agc	tgg	cag	gtg	gcg	ctg	ctg	act	tcg	gtg	384
Cys	Glu	Trp	Arg	Leu	Pro	Ser	Trp	Gln	Val	Ala	Leu	Leu	Thr	Ser	Val	
		115					120					125				

gtc	ttc	att	ggg	atg	atg	tcc	agt	tct	acg	ctc	tgg	gga	aac	atc	tcg	432
Val	Phe	Ile	Gly	Met	Met	Ser	Ser	Ser	Thr	Leu	Trp	Gly	Asn	Ile	Ser	
	130					135						140				

gat	cag	tat	ggc	agg	aaa	aca	ggg	ctg	aag	atc	agt	gtg	ttc	tgg	acc	480
Asp	Gln	Tyr	Gly	Arg	Lys	Thr	Gly	Leu	Lys	Ile	Ser	Val	Phe	Trp	Thr	
145					150					155				160		

ctg	tac	tac	ggc	atc	ctc	agc	gct	ttc	gcg	cca	gtg	tat	agc	tgg	atc	528
Leu	Tyr	Tyr	Gly	Ile	Leu	Ser	Ala	Phe	Ala	Pro	Val	Tyr	Ser	Trp	Ile	
				165					170					175		

ctg	gtg	ctc	cga	ggc	ctc	gtg	ggc	ttt	ggg	att	gga	ggg	gtg	cct	cag	576
Leu	Val	Leu	Arg	Gly	Leu	Val	Gly	Phe	Gly	Ile	Gly	Gly	Val	Pro	Gln	
			180					185						190		

tcg	gtg	acc	ctg	tac	gcc	gag	ttc	ctc	ccc	atg	aag	gcc	aga	gcc	aag	624
Ser	Val	Thr	Leu	Tyr	Ala	Glu	Phe	Leu	Pro	Met	Lys	Ala	Arg	Ala	Lys	
		195					200					205				

tgc	att	ttg	ctg	att	gag	gtt	ttc	tgg	gcc	atc	ggg	acc	gtg	ttc	gag	672
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Cys	Ile	Leu	Leu	Ile	Glu	Val	Phe	Trp	Ala	Ile	Gly	Thr	Val	Phe	Glu	
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gtg	ctt	ctg	gct	gtg	ttt	gtg	atg	ccc	agc	ctg	ggc	tgg	cgc	tgg	ctg	720
Val	Leu	Leu	Ala	Val	Phe	Val	Met	Pro	Ser	Leu	Gly	Trp	Arg	Trp	Leu	
225					230					235					240	
ctg	ctg	ctg	tcg	gcc	gct	cca	cta	ctt	gtc	ttt	gct	gtt	ctg	tgt	ttc	768
Leu	Leu	Leu	Ser	Ala	Ala	Pro	Leu	Leu	Val	Phe	Ala	Val	Leu	Cys	Phe	
				245					250					255		
tgg	ctg	cca	gag	agt	gct	agg	tac	gat	gtg	ctg	tct	ggg	aac	cag	gaa	816
Trp	Leu	Pro	Glu	Ser	Ala	Arg	Tyr	Asp	Val	Leu	Ser	Gly	Asn	Gln	Glu	
			260					265					270			
aag	gcg	att	gct	acc	tta	aag	cgg	atc	gca	aca	gaa	aat	gga	gcc	ccc	864
Lys	Ala	Ile	Ala	Thr	Leu	Lys	Arg	Ile	Ala	Thr	Glu	Asn	Gly	Ala	Pro	
		275					280					285				
atg	cct	ctg	ggg	aag	ctc	atc	atc	tcc	aga	cag	gaa	gac	cga	ggc	aaa	912
Met	Pro	Leu	Gly	Lys	Leu	Ile	Ile	Ser	Arg	Gln	Glu	Asp	Arg	Gly	Lys	
	290					295					300					
atg	agg	gac	ctt	ttc	aca	ccc	cac	ttt	cgt	tgg	aca	act	ctg	ctg	ctg	960
Met	Arg	Asp	Leu	Phe	Thr	Pro	His	Phe	Arg	Trp	Thr	Thr	Leu	Leu	Leu	
305					310					315					320	
tgg	ttt	ata	tgg	ttc	tcc	aat	gcc	ttc	tct	tat	tac	ggc	ttg	gtt	ctg	1008
Trp	Phe	Ile	Trp	Phe	Ser	Asn	Ala	Phe	Ser	Tyr	Tyr	Gly	Leu	Val	Leu	
				325					330					335		
ctc	acc	aca	gaa	ctc	ttc	cag	gcc	gga	gat	gtt	tgc	agc	atc	tcc	agc	1056
Leu	Thr	Thr	Glu	Leu	Phe	Gln	Ala	Gly	Asp	Val	Cys	Ser	Ile	Ser	Ser	
			340					345					350			
cgg	aag	aag	gcg	gtg	gaa	gcc	aaa	tgc	agc	ctg	gct	tgt	gag	tac	ctc	1104
Arg	Lys	Lys	Ala	Val	Glu	Ala	Lys	Cys	Ser	Leu	Ala	Cys	Glu	Tyr	Leu	
		355					360					365				
agc	aaa	gag	gat	tac	atg	gac	ctg	ctg	tgg	acc	acc	ctg	tct	gag	ttc	1152
Ser	Lys	Glu	Asp	Tyr	Met	Asp	Leu	Leu	Trp	Thr	Thr	Leu	Ser	Glu	Phe	
		370				375						380				
cca	ggt	gtc	ctt	gtg	act	ctg	tgg	gtc	atc	gac	cgc	ctg	ggc	cgc	aag	1200
Pro	Gly	Val	Leu	Val	Thr	Leu	Trp	Val	Ile	Asp	Arg	Leu	Gly	Arg	Lys	
385					390					395					400	
aag	acc	atg	gct	ctg	tgt	ttc	gtc	atc	ttt	tcc	ctc	tgc	agc	ctc	ctg	1248
Lys	Thr	Met	Ala	Leu	Cys	Phe	Val	Ile	Phe	Ser	Leu	Cys	Ser	Leu	Leu	
				405					410					415		
ctg	ttc	atc	tgc	att	gga	aga	aat	gtg	cta	acc	ctc	tta	ctg	ttc	att	1296
Leu	Phe	Ile	Cys	Ile	Gly	Arg	Asn	Val	Leu	Thr	Leu	Leu	Leu	Phe	Ile	
			420					425					430			
gca	aga	gcg	ttt	att	tct	gga	ggc	ttc	caa	gca	gcc	tac	gtt	tac	acg	1344
Ala	Arg	Ala	Phe	Ile	Ser	Gly	Gly	Phe	Gln	Ala	Ala	Tyr	Val	Tyr	Thr	
		435					440					445				
cct	gag	gtg	tat	cca	acg	gcg	acg	agg	gcg	ctg	ggc	ctg	ggc	acc	tgc	1392
Pro	Glu	Val	Tyr	Pro	Thr	Ala	Thr	Arg	Ala	Leu	Gly	Leu	Gly	Thr	Cys	

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agc ggc atg gcg aga gtg ggc gcg ctc atc act cca ttc ata gct cag			1440
Ser Gly Met Ala Arg Val Gly Ala Leu Ile Thr Pro Phe Ile Ala Gln			
465	470	475	480
gtg atg ctg gaa tct tcc gtg tac ctg acc ctg gcc gtc tac agt ggc			1488
Val Met Leu Glu Ser Ser Val Tyr Leu Thr Leu Ala Val Tyr Ser Gly			
	485	490	495
tgc tgc ctc ctt gct gcc ttg gcc tcc tgc ttt ctg ccc atc gag acc			1536
Cys Cys Leu Leu Ala Ala Leu Ala Ser Cys Phe Leu Pro Ile Glu Thr			
	500	505	510
aaa ggc cga gca ctg cag gag tcc agc cac cgg gag tgg ggc cag gag			1584
Lys Gly Arg Ala Leu Gln Glu Ser Ser His Arg Glu Trp Gly Gln Glu			
	515	520	525
atg gtt ggc cga ggg aca aac agc aca ggc gtc ccc agg tgc aac tct			1632
Met Val Gly Arg Gly Thr Asn Ser Thr Gly Val Pro Arg Ser Asn Ser			
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ggc tct cag gag tag			1647
Gly Ser Gln Glu			
545			

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 Glu His Asp Val Gln Ile Glu Gly Val Arg Val Gly Leu Glu Ala Val
 35 40 45
 Glu Leu Asp Asp Gly Ala Ala Val Pro Lys Glu Phe Ala Asn Pro Thr
 50 55 60
 Asp Asp Thr Phe Met Val Glu Asp Ala Val Glu Ala Ile Gly Phe Gly
 65 70 75 80
 Arg Phe Gln Trp Lys Leu Ser Val Leu Thr Gly Leu Ala Trp Met Ala
 85 90 95
 Asp Ala Met Glu Met Met Ile Leu Ser Ile Leu Ala Pro Gln Leu His
 100 105 110
 Cys Glu Trp Arg Leu Pro Ser Trp Gln Val Ala Leu Leu Thr Ser Val
 115 120 125
 Val Phe Ile Gly Met Met Ser Ser Ser Thr Leu Trp Gly Asn Ile Ser
 130 135 140
 Asp Gln Tyr Gly Arg Lys Thr Gly Leu Lys Ile Ser Val Phe Trp Thr

145		150		155		160
Leu Tyr Tyr Gly Ile	Leu Ser Ala Phe	Ala Pro Val Tyr Ser	Trp Ile			
	165		170			175
Leu Val Leu Arg Gly	Leu Val Gly Phe	Gly Ile Gly Gly	Val Pro Gln			
	180		185			190
Ser Val Thr Leu Tyr	Ala Glu Phe Leu	Pro Met Lys Ala	Arg Ala Lys			
	195		200			205
Cys Ile Leu Leu Ile	Glu Val Phe Trp	Ala Ile Gly Thr	Val Phe Glu			
	210		215			220
Val Leu Leu Ala Val	Phe Val Met Pro	Ser Leu Gly Trp	Arg Trp Leu			
	225		230			235
Leu Leu Leu Ser	Ala Ala Pro Leu	Leu Val Phe Ala	Val Leu Cys	Phe		
	245		250			255
Trp Leu Pro Glu Ser	Ala Arg Tyr Asp	Val Leu Ser Gly	Asn Gln Glu			
	260		265			270
Lys Ala Ile Ala Thr	Leu Lys Arg Ile	Ala Thr Glu Asn	Gly Ala Pro			
	275		280			285
Met Pro Leu Gly Lys	Leu Ile Ile Ser	Arg Gln Glu Asp	Arg Gly Lys			
	290		295			300
Met Arg Asp Leu Phe	Thr Pro His Phe	Arg Trp Thr Thr	Leu Leu Leu			
	305		310			315
Trp Phe Ile Trp Phe	Ser Asn Ala Phe	Ser Tyr Tyr Gly	Leu Val Leu			
	325		330			335
Leu Thr Thr Glu Leu	Phe Gln Ala Gly	Asp Val Cys Ser	Ile Ser Ser			
	340		345			350
Arg Lys Lys Ala Val	Glu Ala Lys Cys	Ser Leu Ala Cys	Glu Tyr Leu			
	355		360			365
Ser Lys Glu Asp Tyr	Met Asp Leu Leu	Trp Thr Thr Leu	Ser Glu Phe			
	370		375			380
Pro Gly Val Leu Val	Thr Leu Trp Val	Ile Asp Arg Leu	Gly Arg Lys			
	385		390			395
Lys Thr Met Ala Leu	Cys Phe Val Ile	Phe Ser Leu Cys	Ser Leu Leu			
	405		410			415
Leu Phe Ile Cys Ile	Gly Arg Asn Val	Leu Thr Leu Leu	Leu Phe Ile			
	420		425			430
Ala Arg Ala Phe Ile	Ser Gly Gly Phe	Gln Ala Ala Tyr	Val Tyr Thr			
	435		440			445
Pro Glu Val Tyr Pro	Thr Ala Thr Arg	Ala Leu Gly Leu	Gly Thr Cys			
	450		455			460
Ser Gly Met Ala Arg	Val Gly Ala Leu	Ile Thr Pro Phe	Ile Ala Gln			
	465		470			475
						480

Val	Met	Leu	Glu	Ser	Ser	Val	Tyr	Leu	Thr	Leu	Ala	Val	Tyr	Ser	Gly	
				485					490					495		
Cys	Cys	Leu	Leu	Ala	Ala	Leu	Ala	Ser	Cys	Phe	Leu	Pro	Ile	Glu	Thr	
			500					505					510			
Lys	Gly	Arg	Ala	Leu	Gln	Glu	Ser	Ser	His	Arg	Glu	Trp	Gly	Gln	Glu	
		515					520					525				
Met	Val	Gly	Arg	Gly	Thr	Asn	Ser	Thr	Gly	Val	Pro	Arg	Ser	Asn	Ser	
	530					535					540					
Gly	Ser	Gln	Glu													
545																